Week 1 Exercizes

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This is an R Markdown of the exercizes assigned for week 1 of R training at Sorneson Impact Center.

Tables 1-7

```
mtcars %>%
  group_by(gear) %>%
  summarize(n = n())
```

```
## # A tibble: 3 x 2
##    gear     n
##   <dbl> <int>
## 1     3    15
## 2     4    12
## 3     5     5
```

```
mtcars %>%
  group_by(carb) %>%
  summarize(n = n())
```

```
## # A tibble: 6 x 2
##    carb     n
##   <dbl> <int>
## 1     1     7
## 2     2    10
## 3     3     3
## 4     4    10
## 5     6     1
## 6     8     1
```

```
#Create a table of vs
#Create a table of am

#tables of cyl by "x"
with(mtcars,table(gear, cyl))
```

```
##     cyl
## gear  4  6  8
##    3  1  2 12
##    4  8  4  0
##    5  2  1  2
```

```
with(mtcars,table(am, cyl))
```

```
##    cyl
## am   4  6  8
##   0  3  4 12
##   1  8  3  2
```

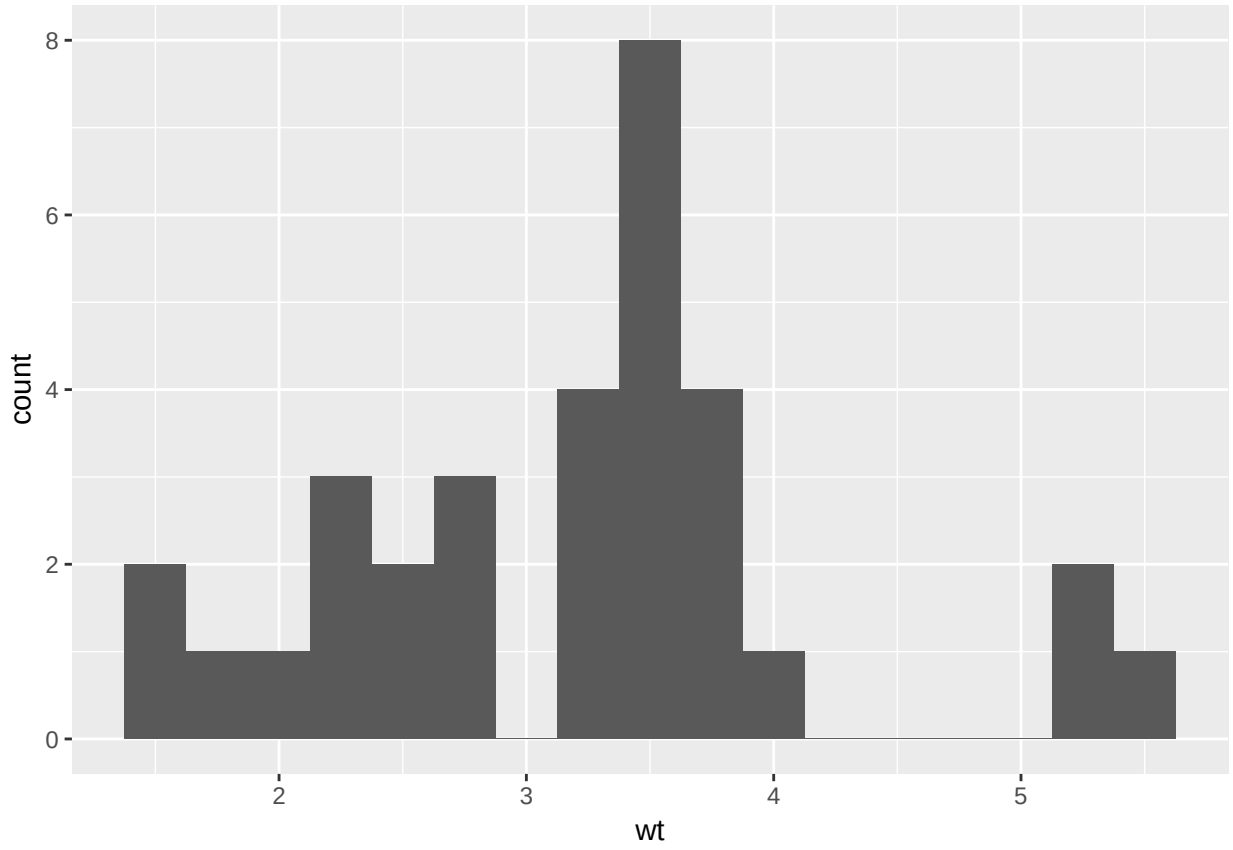
```
with(mtcars,table(vs, cyl))
```

```
##    cyl
```

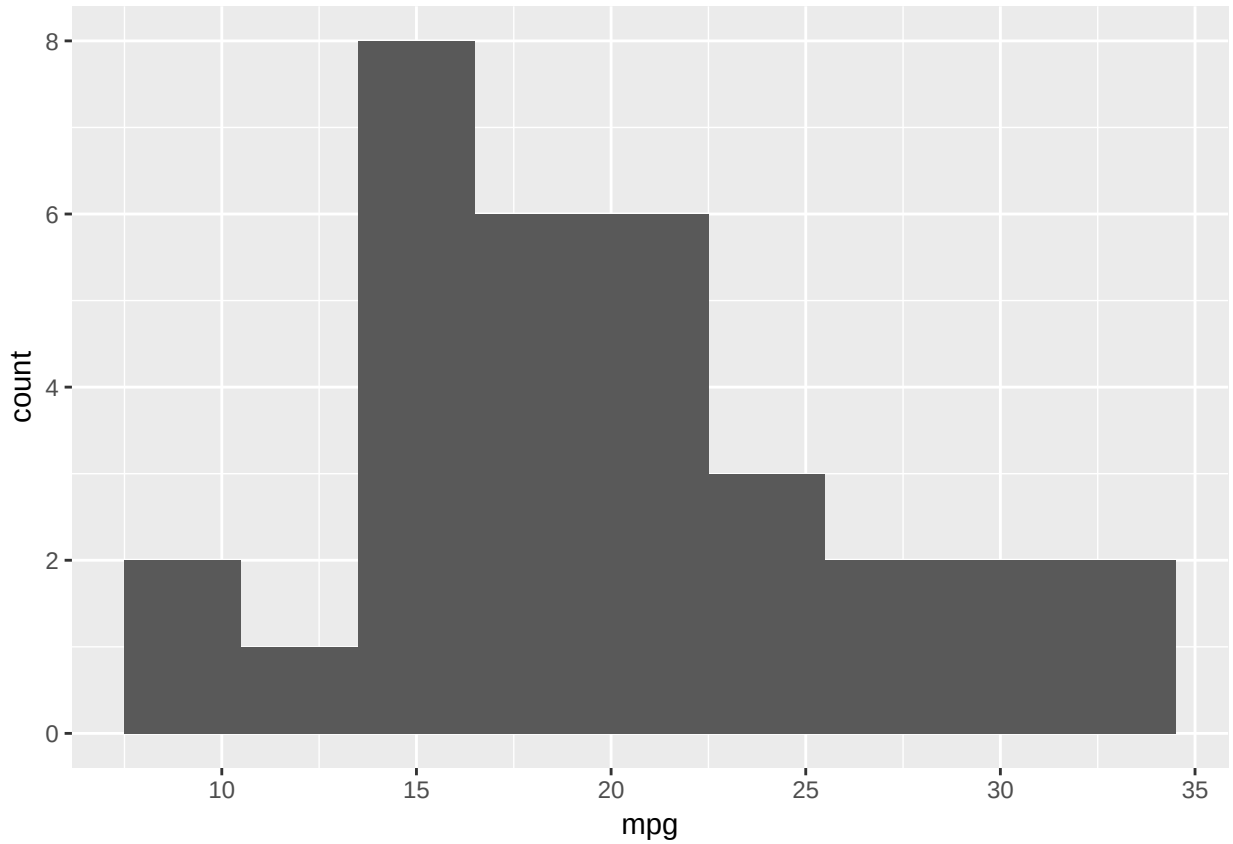
```
## vs   4  6  8
##   0  1  3 14
##   1 10  4  0
```

Histograms of wt, mpg, qsec, and hp.

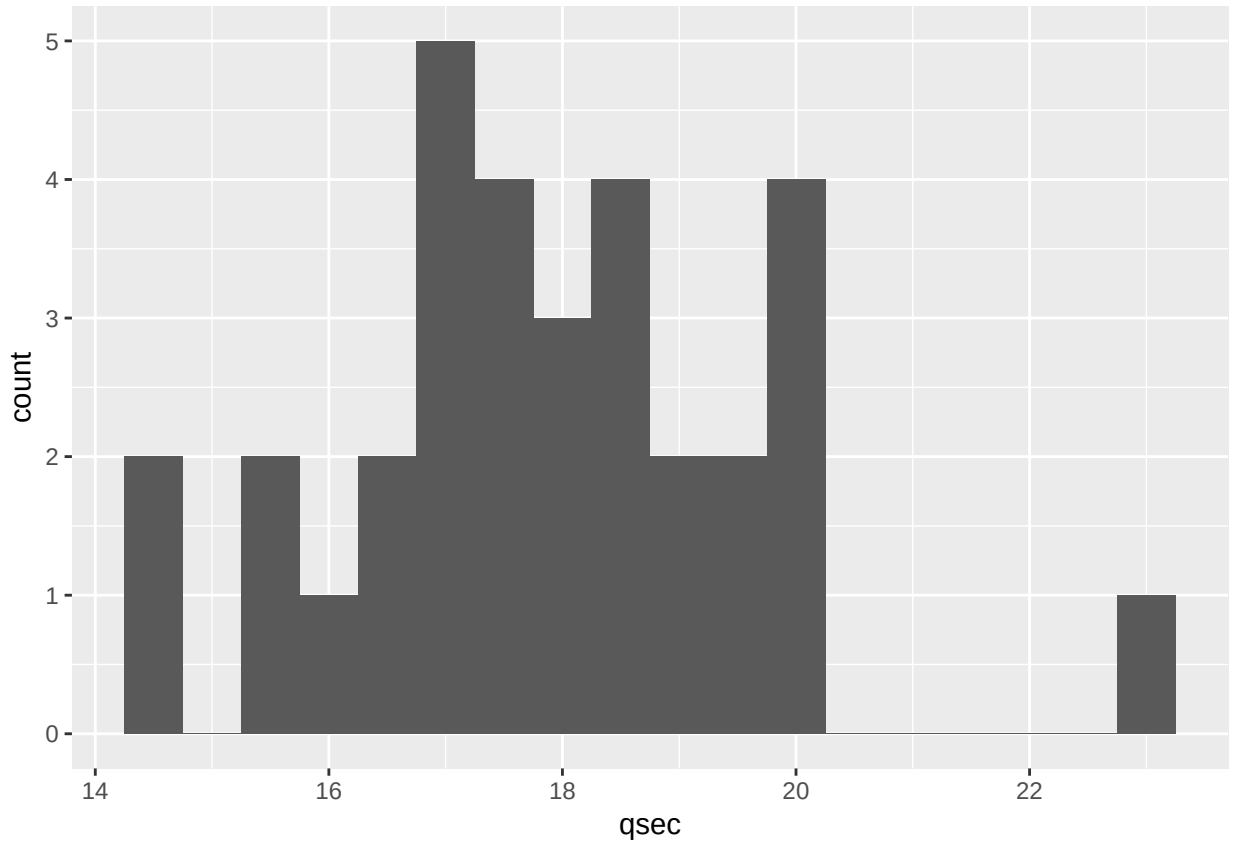
```
#histogram of wt
ggplot(mtcars, aes(x = wt)) +
  geom_histogram(binwidth = .25)
```



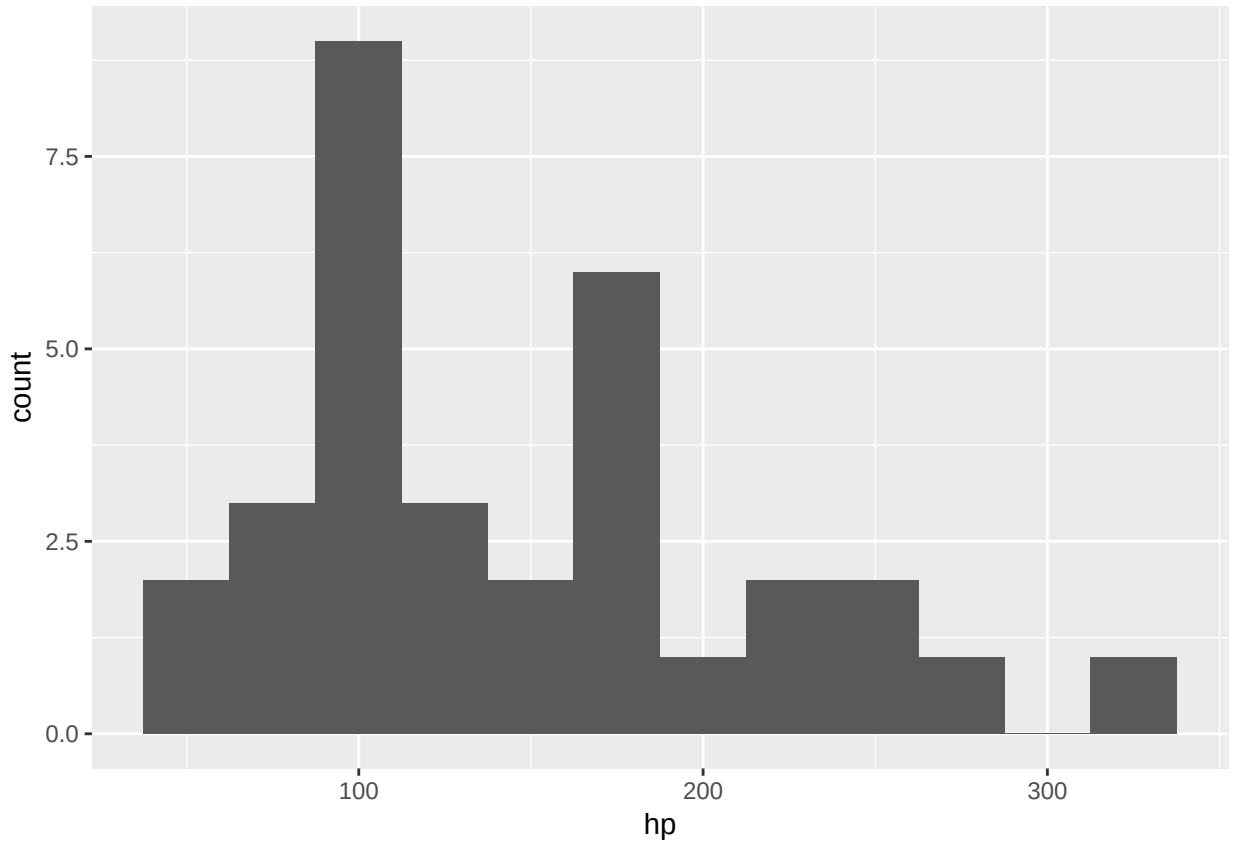

```
#histogram of mpg
ggplot(mtcars, aes(x = mpg)) +
  geom_histogram(binwidth = 3)
```




```
#histogram of qsec
ggplot(mtcars, aes(x = qsec)) +
  geom_histogram(binwidth = 0.5)
```




```
#histogram of hp
ggplot(mtcars, aes(x = hp)) +
  geom_histogram(binwidth = 25)
```

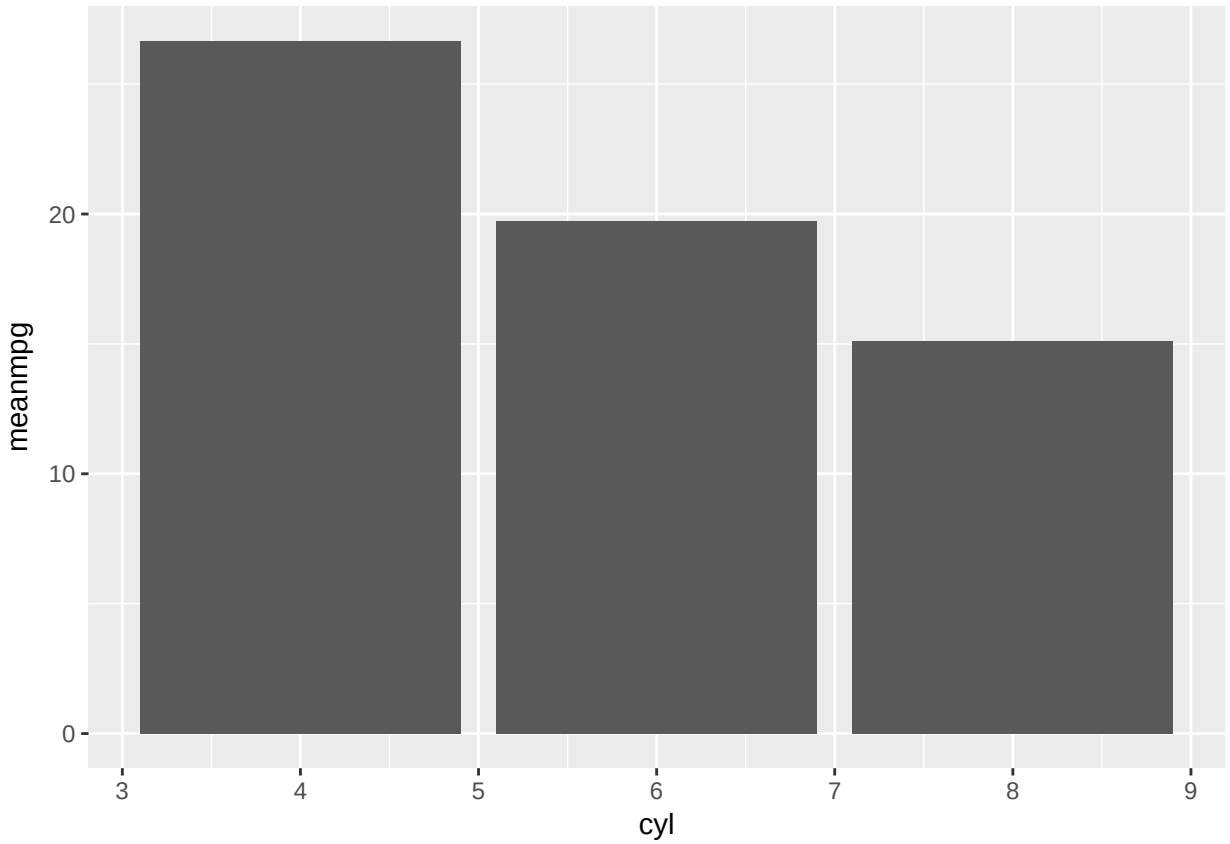


Mean mpg by cylinder

```
mtcars %>%
  group_by(cyl) %>%
  summarize(meanmpg = mean(mpg))
```

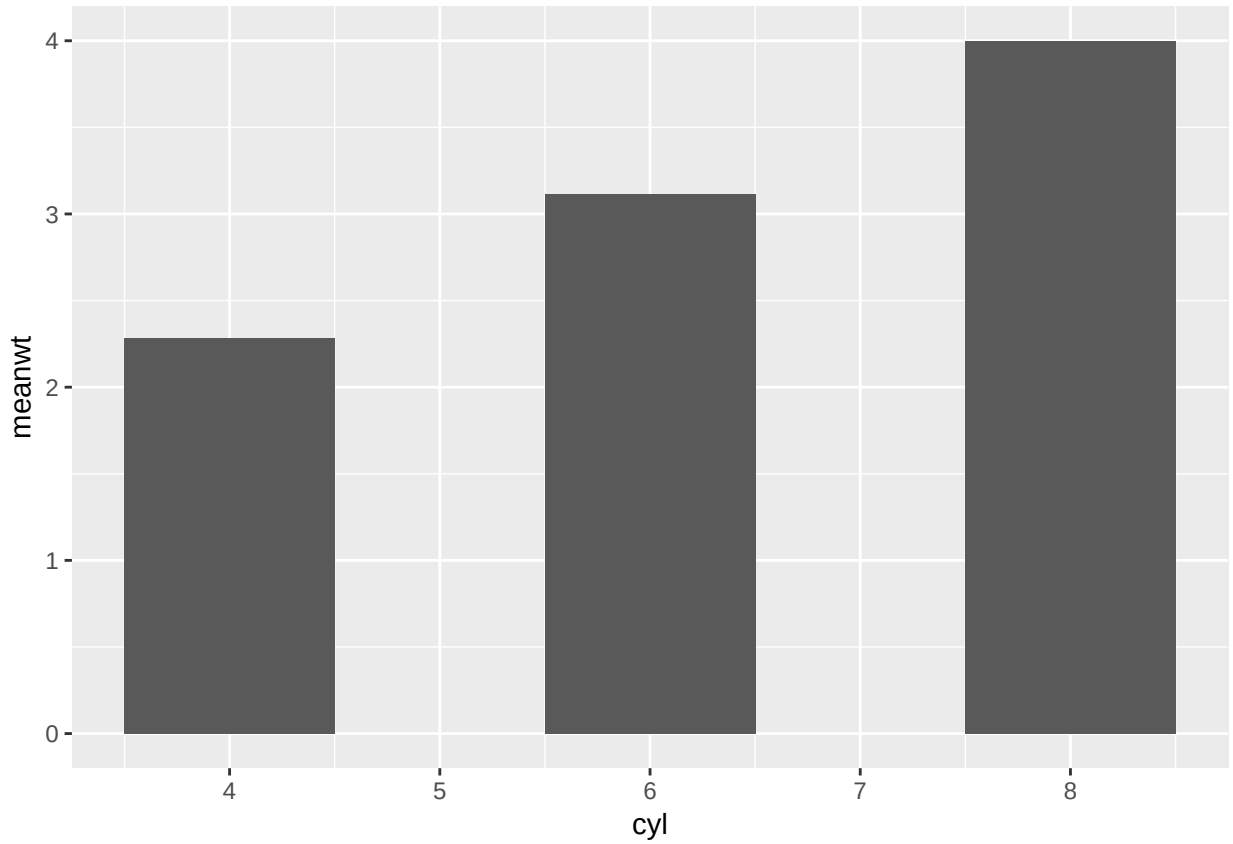
```
## # A tibble: 3 x 2
##     cyl meanmpg
##   <dbl>   <dbl>
## 1     4    26.7
## 2     6    19.7
## 3     8    15.1
```

```
#graph
mtcars %>%
  group_by(cyl) %>%
  summarize(meanmpg = mean(mpg)) %>%
ggplot(aes(x = cyl, y = meanmpg)) +
    geom_col()
```



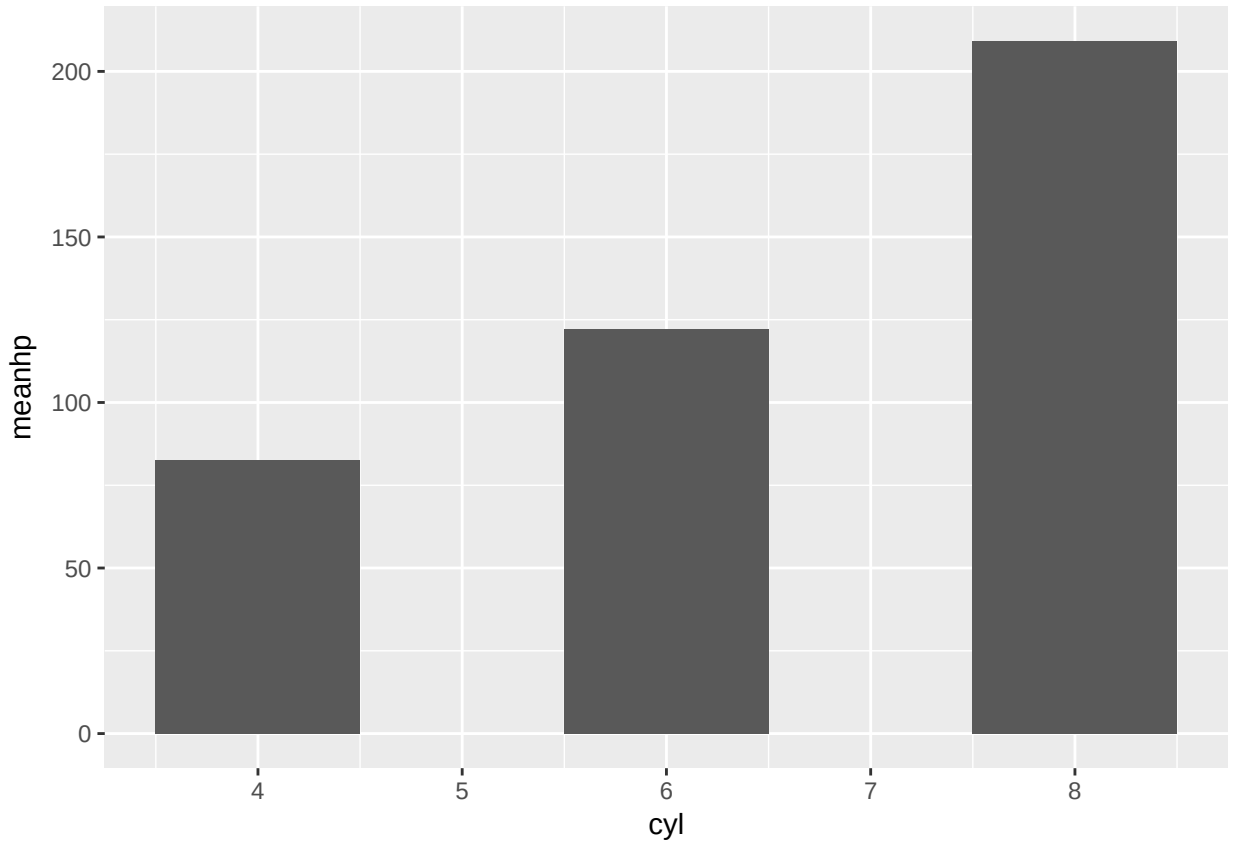
Mean weight by cylinder

```
wt_cyl <- mtcars %>%
  group_by(cyl) %>%
  summarize(meanwt = mean(wt))

ggplot(wt_cyl, aes(x = cyl, y = meanwt)) +
  geom_col(width = 1)
```



Mean horsepower by cylinder

```
meanhp_cyl <- mtcars %>%
  group_by(cyl) %>%
  summarize(meanhp = mean(hp))

ggplot(meanhp_cyl, aes(x = cyl, y = meanhp)) +
  geom_col(width = 1)
```


200
150
100
50
0
meanhp
4
5
6
7
8
cyl